Islamic Banking: Core Vendors Fill Growing Demand for Shari'ah-Compliant Banking

Analyst Author:
Robert Hunt
Research Director, Retail Banking

Oct 2007
Reference # V53:02RCE

Two Charles River Place
63 Kendrick Street
Needham, MA 02494
United States

T +1.781.292.5200
F +1.781.449.6982
towergroup.com

TowerGroup Take-Aways

- A growing number of both Islamic and non-Islamic people worldwide are seeking banking products based on Shari'ah (Islamic law), a major tenet of which is the prohibition of interest.
- Modern Islamic banking traces its roots to initiatives in Pakistan in the 1950s; the first successful ventures occurred in Egypt and Malaysia in the 1960s.
- Banks rely on Islamic scholars to interpret Islamic law and ensure that a proposed product will be considered compliant with Shari'ah.
- Core vendors seeking new business in predominantly Muslim-populated countries must provide support for Islamic banking.
- A number of leading global core systems vendors, including i-flex solutions, Misys, Infosys, Systems Access, Tata Consultancy Services, and Temenos, now offer support for Islamic banking.

Report Coverage

This TowerGroup Research Note provides a background on Islamic banking and products that are compliant with Islamic law, or Shari'ah. The Note also identifies vendors that provide core processing support for Islamic banking products and discusses the issues faced by vendors. Lastly, the recent core systems implementation effort at an Islamic bank is presented.

Background

A growing number of the more than 1 billion Muslims worldwide are demanding Shari'ah-compliant banking products. Additional demand for these products comes from non-Islamic people who either agree with the ethical principles of Islamic banking or find the product offerings more attractive than traditional (non-Islamic) banking products. TowerGroup Research Note V45:01BC, *The Rise of Islamic Banking in the UK and US: FSIs Observe Ethical Tradition for Organic Growth*, provides further insight on these products. TowerGroup Research Note V52:30B, *Breaking News from the Middle East and North Africa (MENA): A Primer on the Financial Services Industry*, provides an overview of banking in several of the most important Islamic banking markets.

Although banking services have long been available in Muslim-populated countries, they were typically limited to trust-based funds transfers and safekeeping of funds or conventional (non-Islamic) banking products. The first attempt at modern Islamic banking, which occurred in Pakistan during the 1950s, was unsuccessful. In the 1960s, however, a small number of banks formed to offer limited Islamic banking products. These banks succeeded and became the model for subsequent efforts. Prominent among these first banks were the Perbadanan Wang Simpanan

Bakal-Bakal Haji (PWSBH) in Malaysia and the Mit Ghamr Savings Bank in Egypt. PWSBH still exists as Lembaga Tajung Haji and provides financing for religious pilgrimage to Mecca; Mit Ghamr exists today in the form of the government-owned Nasser Social Bank, which supports social and economic development in Egypt.

In the latter half of the 1970s, a number of Islamic banks were formed that became highly successful, among them Dubai Islamic Bank, Kuwait Finance House, and First Gulf Bank (UAE). In contrast to the earlier Islamic banking efforts, these banks offered a robust product set of Shari'ah-compliant products. The success of these early Islamic banks and increasing wealth among Muslims led Egypt's Bank Misr to create an Islamic subsidiary in 1979. This practice would be followed by an estimated 50 banks in the next five years. The dual model of Islamic banks and conventional banks with Islamic subsidiaries or branches continues today.

At the end of the 1970s, Islamic banking gained momentum as the Pakistani government began conversion of the nation's banking system to Islamic banking. Sudan and Iran followed suit in the early 1980s. Later in the decade, prominent conventional banks such as Al Rahji Bank and National Commercial Bank, both in Saudi Arabia, began offering Shari'ah-compliant products. Global banks, including HSBC, Citibank, and JPMorgan Chase, began offering Islamic products during the last two decades of the 20th century.

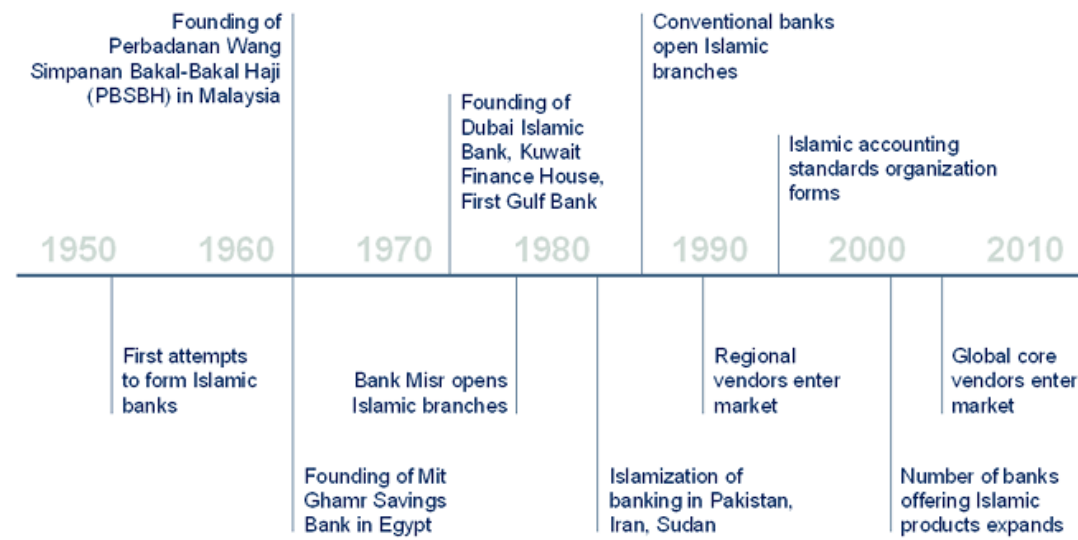
The growth in Islamic banking has been facilitated by the development of Islamic accounting standards and policies. The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI), founded in 1991, provides guidelines for accounting policies and processes. Similarly, the Islamic Financial Services Board, formed in 2002, addresses risk and compliance issues for Islamic banking. These organizations have helped ensure the soundness of Islamic banking and provide guidelines for core vendors in developing the accounting software for Islamic banking products.

As of 2000, an estimated 200 financial services institutions (FSIs) worldwide offered Islamic banking products and collectively held nearly $160 billion (USD) in assets. The number of FSIs offering Islamic products has grown to more than 250, and their holdings now represent an estimated $750 billion in Islamic assets. TowerGroup estimates that $350 billion of this amount is held by fully Islamic institutions and the remaining $400 billion by conventional banks that offer Islamic banking services.

The growth in Islamic banks continues at a strong pace: Alinma Bank, a major new Islamic bank, is opening in Saudi Arabia; The Bank of London and Middle East will become the third Islamic bank in the United Kingdom upon its opening later this year; and the Central Bank of Kenya recently awarded a banking license to First Gulf Bank, which will become the first Shari'ah-compliant bank to open in Kenya. Meanwhile, large conventional banks such as Maybank in Malaysia are adding new products to meet growing demand for Shari'ah banking. TowerGroup projects that total Islamic banking assets will grow at a 15% annual rate during 2008-10.

The initial efforts to computerize Islamic banking required in-house development. As Islamic banking expanded, regional vendors of Islamic core banking systems formed in the Middle East and Asia in the late 1980s. The success of the regional vendors and increasing number of large banks offering Islamic banking products has encouraged global core vendors to begin offering Islamic versions of their systems.

A timeline of Islamic Banking is presented in Exhibit 1.

Exhibit 1
Timeline of Islamic Banking (1950-2007)
Source: Leonardo and Francis Press, core vendors, TowerGroup

Islamic banking is more complex than traditional banking in that products must conform not only to the secular laws of a country but also to interpretations of the holy Qur'an by local Islamic scholars. A central tenet of Shari'ah is *riba*, the prohibition of interest. Moreover, Islamic law does not permit use of funds for investments or purchases related to activities it deems impermissible (*haram*), such as alcohol consumption or gambling. In general, anything not defined as *haram* is considered permissible (*halal*) under Shari'ah. However, Shari'ah interpretations can vary by region and country because they are defined by local Islamic scholars. Banks endeavoring to offer Islamic banking typically enlist local scholars to serve on the bank Shari'ah board or committee to assist in designing Shari'ah-compliant bank products and processes. Many larger conventional banks also have a specialized function to educate employees and ensure ongoing adherence to Islamic principles. Al Rahji bank, for example, has a Shari'ah Group whose main responsibilities are stated on the bank's Web site as follows:

- Study the Bank's transactions and activities, then report back to the Shari'ah Committee in order to prepare appropriate policies.

- Monitor the implementation of policies decided by the Shari'ah Committee and its Executive Committee in all the Bank's internal and external activities.

- Develop formats, contracts and products in light of Islamic regulations.
- Increase awareness of Islamic finance within the Bank and beyond it.
- Develop necessary information and communication means to implement the Group's responsibilities.

Overview of Islamic Banking Products

Besides complying with the prohibitions against interest and the financing of forbidden activities, Islamic banking products are based on the concept of property exchange, profit and risk sharing, and certainty. Uncertainty (*gharar*) is not permissible, and contracts for banking services must clearly define the responsibilities and rights of the customer and bank as to the ownership of property, fees, and risk sharing.

Islamic Deposit Products

Shari'ah-compliant banks can offer customers non-interest-paying current accounts but can't provide conventional interest-paying savings or time deposit accounts. However, banks can offer *wadiah* accounts, which function much like conventional savings accounts. These accounts are based on safe custody contracts whereby the bank promises to hold the deposit account for the customer. Islamic banks typically provide a *hibah* credit to the customer as a reward for maintaining the deposit account. This reward, a sharing of the bank's profits, is at the sole discretion of the bank, but a bank that does not provide *hibah* can expect to lose significant market share to competitors.

Another deposit-like account type is a *mudaraba* investment account, which rewards customers who entrust their funds to the bank. Clients deposit funds into *mudaraba* accounts that can be part of a general comingled investment fund or, at the request of the customer and agreement of the bank, can be used to fund a specific project. Although there is no guarantee of return, any subsequent profit from the funds invested is distributed to both the bank and the depositors. Because any losses are borne solely by the investors, many Islamic banks have established reserves and invest the funds conservatively to protect the clients' principal.

An interesting feature of the deposit products is the computation of *zakat*, a charitable payment based on the annual wealth or income of the individual. If the wealth or income exceeds a threshold amount (known as *nisab*), the bank calculates the *zakat* amount for the customer. The *zakat* funds are then swept into a special government-sponsored fund for subsequent charitable distribution. Although the *zakat* calculation is generally based on deposits and investments, banks in several countries also include the amount financed by the customer in the *zakat* calculation.

Islamic Financing Products

The three main types of Shari'ah-compliant retail financing products use different contracts between the bank and customer. The contracts differ regarding ownership of the goods, nature of payments, and sharing of profit and loss. Instead of charging interest, the banks charge administrative and management fees that cover their costs and provide them a profit margin. Interestingly, all three contract types can be used for home financing, although the *ijara* (leasing) and *musharaka* (partnership or profit-sharing) contract forms are the most commonly used.

- In *murabaha* contract financing, the customer identifies the goods to be purchased and negotiates with the bank the down payment and total amount of fixed payments the customer is willing to pay (the purchase price plus a reasonable fee over an agreed period of time). The bank then purchases the goods and resells them to the customer, passing the title to the customer at the time of the purchase. This cost-plus type of financing lending is typically secured to the extent that the customer cannot sell the goods without receiving permission from

the bank.

- *Ijara* financing contracts are similar to rent-to-own arrangements. The customer identifies the goods and negotiates with the bank the total amount of payments, including an administrative or management fee that the customer pays to the bank. The bank then purchases the goods and retains ownership until the payments have been completed.

- A third type of financing is a *musharaka* contract, which involves sharing of ownership of a property between the bank and customer. The customer identifies the property and negotiates with the bank for the total purchase price of the property and the percentage of ownership. The property is then leased to the customer. Payments include an amount to be applied to the bank's portion of ownership plus administrative and maintenance costs. The ownership percentage is adjusted periodically (diminishing *musharaka*) to reflect the customer's cumulative payments.

Most Islamic banks also offer two unique profit-free financing types to individuals. *Hajj* financing is provided for Muslims wishing to participate in the *Hajj*, the annual religious pilgrimage to Mecca (all followers of Islam who are physically able and can afford to do so are required to make the pilgrimage at least once during their lifetime). *Hajj* financing is typically unsecured and may require only evidence of the customer's travel plans. A second unique product to Islamic banking is *qard al-hasan* (or *qard hasan*). This profit-free financing is funded by the bank and is based on the applicant's hardship or charitable need. *Hajj* and *qard hasan* financing reflect the ethical role of Islamic banks.

The concept of future delivery of goods has uncertainty as to the date of delivery and perhaps the price (depending on the contract terms) and thus appears impermissible under Islamic law. Two Shari'ah-compliant products have been developed, however, to meet the needs for financing the future delivery of property or goods. These financing products are based on either *istisna* or *salam* contracts.

Istisna contracts are used for manufacturing of goods or construction projects and require the buyer and seller to agree on a fixed price and detailed specifications. The bank acts as the third party, contracting with the buyer to provide the goods and with the seller to produce the goods. Upon completion of the seller's responsibility, the bank pays the seller and the buyer subsequently pays the bank either in full or in fixed installments (installment payments include an agreed upon fee to compensate the bank for administrative costs and a fair profit).

Salam contracts differ from *istisna* contracts in that the bank pays the seller in advance for the future delivery of goods. *Salam* contracts are generally used to meet the financing needs of small farmers and traders, and they involve commodity goods that can be described in detail as to quantity and quality. The bank contracts with the customer for the delivery of the goods at a specified future date and builds a profit margin into the price agreed. The bank takes ownership of the finished goods and resells them to receive cash payment and record any profit.

The most common Islamic deposit and financing products are summarized in Exhibit 2.

Features of Commonly Offered Islamic Banking Products

Deposit Products	Concept	Features
Wadiah	Safekeeping	No specific return on funds; banks may periodically distribute rewards.
Mudaraba	Pooled or directed investment with profit sharing	Funds are comingled for bank's general use. Profits are shared between bank and customers and losses are borne by customers.
Financing Products	**Ownership**	**Features**
Murabaha	Customer	Customer and bank agree to bank's profit amount prior to closing. Typically fixed payment amount that includes bank's profit.
Ijara	Financier	Rent-to-own financing. Payments are based on amount financed plus variable rent amount.
Musharaka	Shared	Joint ownership with profit and loss sharing based on percentage of ownership. Payments change periodically based on share of ownership.
Hajj	Not Applicable	Financing of an individual's religious pilgrimage to Mecca; repayment may use multiple payments or a or single payment
Istisna	Financier	Financing for future delivery of manufactured goods at a fixed price that includes a profit for the bank
Salam	Financier	Financing for future delivery with amount fully paid at contract signing, typically used for agriculture

Exhibit # 53:02RCE-E2
Source: Vendors, TowerGroup research

Exhibit 2
Features of Commonly Offered Islamic Banking Products
Source: Vendors, TowerGroup research

Late fees on delinquent payments are allowed in some countries, with a fixed amount typically charged to reflect the bank's operational costs associated with ensuring the receipt of funds. In some cases, a portion of the late fees is donated to charity.

A number of banks have begun offering Shari'ah-compliant credit cards that either require the customer to pay the entire balance each month or allow the customer to charge purchases up to an agreed limit and pay off the balance in installments. The banks charge a fee for the use of these cards to provide themselves a profit margin since they cannot charge interest. Transactions originating from merchants selling prohibited items (e.g., liquor) are not accepted.

Islamic Banking and Core Vendors

As more Shari'ah-compliant banks are formed and traditional banks decide to offer Islamic products, core vendors must add Islamic banking support to compete in areas with predominantly Muslim populations. A second, but smaller, market exists in Shari'ah-compliant banks located in countries with minority Muslim populations. Lastly, global banks are attempting to reduce the number of core banking systems used for their international branches. These banks can be expected to consider Islamic banking support as a factor in decisions on core systems. Although the vendor's cost of adding Islamic banking support is significant, this growing market appears to justify the systems development expenditure.

The effort required to incorporate Islamic banking support in conventional core banking systems is significant. Vendors must overcome the following issues when developing support for Shari'ah-compliant products.

- Need for interpretation of Islamic laws relating to banking
- Requirements in some countries to support the *hijri* (the lunar Islamic calendar)
- Inconsistencies in allowable products between countries and regions
- Inconsistencies in the Arabic language and different languages among Muslim-populated countries
- Demand for new product capabilities as banks define new Shari'ah-compliant services
- Detailed accounting entries required by the purchase and sale elements of Islamic financing to reflect the ownership of property

Core Vendors

Core vendors offering Islamic banking support fall into two categories. The first category consists of global banking vendors such as i-flex solutions, Infosys, Misys, Systems Access, Tata Consultancy Services (TCS), and Temenos. Although these vendors have historically sold their conventional core banking systems in Muslim-populated countries, they have only recently added support for Islamic products to their offerings. Misys, for instance, had nearly 50 installations of its Equation product in the Middle East before adding Islamic support. Infosys is the most recent entry into the market, introducing an Islamic version of its Finacle system in 2007. I-flex solutions, with a leading position in the conventional banking Asian market, faced a similar demand for Islamic banking in heavily Muslim-populated Asian countries.

A second group of core vendors may be categorized as local or regional vendors that specifically target the predominantly Muslim-populated countries. Some of these vendors, such as Path Systems, have built core banking systems specifically for use by Islamic banks, while others have developed systems that support both conventional and Islamic products. Kuwait-based International Turnkey Systems employs a hybrid approach to provide Islamic banking support: The vendor combines its front-end system with US-based Harland Financial Solutions' Phoenix system.

The local experience and presence of the regional vendors serves them well in winning new implementations. Recently, however, the global vendors are gaining increasing traction in the Islamic banking market. TowerGroup believes the global vendors are gaining share as banks become more marketing oriented and begin giving as much importance to customer relationship features as they give to accounting and reporting functions when they evaluate competing vendors' systems. Moreover, the flexibility of the global systems is well suited to larger banks that want to operate in multiple countries and offer both conventional and Islamic banking products. An example of this flexibility can be found in the TCS BaNCS system, which supports Islamic operations at the teller, branch, or entity level, allowing a bank to separate conventional from Islamic banking at the level it prefers. Infosys Finacle system also has software that distinguishes processing between Islamic and conventional products. This software includes the use of dual calendars (Gregorian and *hijri*) and separate product sets that are determined at the customer level.

The global core banking vendors providing Islamic banking product support are listed in Exhibit 3, and the regional and local vendors are listed in Exhibit 4.

Global Vendors with Conventional Core Banking Systems That Support Islamic Banking Products (2007)

Vendor	Headquarters	Core System	Client Banks
i-flex solutions	Mumbai, India	Flexcube	Shamil Bank, Bahrain Dubai Islamic Bank
Infosys	Bangalore, India	Finacle	Arab National Bank, Saudi Arabia Emirates Bank, UAE
Misys	London, England	Equation	Bosna Bank, Bosnia Herzegovina KASB Bank, Pakistan
Systems Access	Singapore	SYMBOLS	First Dawood Islamic Bank, Pakistan ABC Bank, Egypt
Tata Consultancy	Mumbai, India	BaNCS	Bank Keshavarzi, Iran AMLAK Finance PJLC, UAE
Temenos	Geneva, Switzerland	T24	Al Salam Bank, Bahrain First Gulf Bank, UAE

Exhibit # 53:02RCE-E3
Source: Vendors, TowerGroup research

Exhibit 3
Global Vendors with Conventional Core Banking Systems That Support Islamic Banking Products (2007)
Source: Vendors, TowerGroup research

Regional Vendors with Core Banking Systems That Support Islamic Banking (2007)

Vendor	Headquarters	Core System	Client Banks
Autosoft Dynamics	Lahore, Pakistan	AutoBanker	First Women's Bank, Pakistan
BML Istisharat	Beirut, Lebanon	ICBS	Masraf Al Rayan, Qatar
FACT	Amman, Jordan	BanXware/OraBank	Jordan Islamic Bank
Infopro	Petaling Jaya, Malaysia	ICBA	KFH Ijarah, Malaysia
International Computer Systems	London, England	BANKS	Jordan Commercial Bank
International Turnkey Systems	Safat, Kuwait	Harland Financial Solutions – Phoenix	Bahrain Islamic Bank
Leadsoft	Dhaka, Bangladesh	PcBank	Al-Arafa Islamic Bank, Bangladesh
Microlink Banking Systems	Kuala Lumpur, Malaysia	MiBS	Bank Persatuan, Malaysia
Path Solutions	Safat, Kuwait	iMAL, iFinance	Amar Bank, Kuwait
Silverlake Axis	Singapore	SIBS	Islamic Bank of Thailand

Exhibit # 53:02RCE-E4
Source: Vendors, TowerGroup research

Exhibit 4
Regional Vendors with Core Banking Systems That Support Islamic Banking (2007)
Source: Vendors, TowerGroup research

The varying product requirements, language differences, and accounting and reporting requirements make it difficult for any vendor to achieve timely implementations of Shari'ah-compliant systems. Additionally, a lack of local technical staff presence can lead to project delays and vendors have experienced difficulty mobilizing their own staff to work at the banks' locations.

The global vendors have taken a number of steps to mitigate these problems over the past several years. These steps include hiring and maintaining locally based staff and creating Shari'ah-compliant model bank software. I-flex solutions, for example, has a dedicated Islamic banking development team and recently hired a Malaysia-based person to direct its Islamic banking strategy. The model bank software provides approximately 80% (depending on country requirements) of the required functionality to support Islamic banking and is incorporated with the vendors' conventional banking software to reduce the amount of customization needed for each new client. Temenos now offers country-specific model bank software for several countries, further reducing the need to add local functionality and thus improving implementation time.

Islamic Banking Example: Al Salam Bank

A number of new Islamic banks have recently been formed to meet the growing demand for Islamic products. Al Salam Bank formed in Bahrain in 2006 with the goal of becoming a major Islamic regional bank offering retail, corporate, investment banking, and wealth management services. The bank's initial public offering raised over $7 billion (it was the largest IPO in Bahrain's history), and the bank was listed on the Bahrain Stock Exchange in April 2006.

The major business requirements for Al Salam's core banking system were fast implementation, full Shari'ah compliance, and the ability to support Islamic banking both locally and globally. The major technical requirements included a single-vendor solution, real-time processing, and multilanguage capabilities at both the user level and the customer level. The bank employed Ernst and Young to assist in the core system selection process and issued a request for proposal in June 2006. After closely examining three core banking systems that provided Islamic banking support, Al Salam selected Temenos' T24 system. The bank chose a Hewlett-Packard UNIX processing platform and elected to use jBase as its relational database.

A key factor in Al Salam Bank's selection of the T-24 system was Temenos' recent creation of a model Islamic bank for Bahrain that was based on the vendor's previous implementations of T-24 for Islamic banking support. A review of the model bank's features by the bank's six-member Shari'ah committee (which included two renowned Islamic scholars) found that the system was fully compliant for use in Bahrain, allowing an out-of-the-box implementation for retail banking. Al-Salam and Temenos implemented the system for retail banking in less than six months, achieving live operations at the beginning of 2007. The bank recently began offering corporate and treasury services to customers.

The bank is now operating in Bahrain and Sudan and has three additional units scheduled to open in the remainder of 2007. Reflecting the strong demand for Islamic banking services, the bank's assets grew to more than 245 million Bahraini dinars ($650 million) as of March 2007.

Summary

Demand for banking products compliant with Islamic law, or Shari'ah, continues to grow throughout the world as Muslims seek to align their savings, investments, and financing with Islamic principles. TowerGroup estimates that Islamic assets are growing at 15% annually. This growth in turn drives the creation of more Islamic banks and the addition of Shari'ah-compliant products at conventional banks.

Banks, working with Islamic scholars, have been able to create a set of profitable banking products that meet the financial needs of their customer base while insuring adherence to the principles of Shari'ah.

A number of global core systems vendors have recently added Islamic banking support to their product offerings. The global vendors have historically lacked the in-depth knowledge of local markets possessed by smaller regional vendors. However, the global vendors are gaining market share due to the flexibility, scalability, and customer service features of their systems. They are also recruiting Islamic banking experts and securing local technology resources.

The global vendors have added Islamic model bank software to their product offerings. The model bank software allows for faster implementation and is incorporated into the vendor's maintenance support contracts. TowerGroup expects that vendors will increasingly develop country-specific model bank software as they identify key target markets for their Islamic banking systems.